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Nesting of the Sulphur-bellied Flycatcher.

BY RICHARD D. LUSK, ROSEMONT, A. T.

LONG the ever-flowing canon streams in some of the higher ranges of southern Arizona, at an altitude where grow large sycamores in abundance (5000 to 6500 feet) may be found a curious member of the family *Tyrannidae*, the Sulphur-bellied Flycatcher. But he is not to be found in these, his breeding haunts, until spring has ripened into summer. The warblers and vireos and the other flycatchers, the beautiful tanagers and the wary Scott's Oriole with his melodious whistle, reminding one of the first strain of "Yankee Doodle," have all been back for weeks in their favorite resorts of hillside or mountain top or canon depth, ere the first pair of these birds puts in an appearance or makes their presence known by an unmusical discordant screech.

They seem to come in pairs, during the last days of May or early in June. Having killed several females in June whose ovaries showed no indication of the presence of the breeding season, I surmised that possibly they did not breed here, and, after watching them assiduously two or three seasons thro' June and even into July, I had nearly given up the quest when a companion shot one about Aug. 1 containing a fully formed egg.

With new light on the subject, I watched thereafter later in the season and on Aug. 15, '94, was rewarded by finding a set of three eggs, the first taken in the United States I believe, and which I afterward sent to the late Major Bendire. The nest referred to, as well as all subsequent ones that I have found, was in a natural cavity of a sycamore, caused by the rotting out, within the trunk, of the base of a broken off limb, of which cavities there are many in the sycamores. There is little or no cavity below the level of the opening, and those selected are quite roomy, so that the bird which is somewhat larger than the kingbird, has plenty of room without mussing her plumage, and so large is the entrance that usually the largest hand would find ample room for entrance.

The nests which are marvels of uniformity and simplicity as to materials, are made of the naturally-curved, dried leaf stems of the walnut, without a shred of lining of any kind. The stems, which are stiff and quite uniformly curved, are so arranged that their natural curves form the round nest. Sometimes, however, in case of a rough-bottomed cavity, a sub-material of small sticks, bark etc., is made use of. They are generally quite indifferently made, like most nests within cavities, but last season I found one so compactly put together that I was able to remove and handle it without injury. Though quite thick, one could distinctly see the large dark eggs through the bottom of the wire-like structure after its removal from the cavity. No other number than three of either eggs or young was ever found, I believe; no other material in the nest structure than the leaf stems mentioned; and no other location than that of a natural cavity in a sycamore by running water.

This is one of the few species nesting here, who wait their nesting for the second spring, the rainy season, which opens about July 1st. The Buff-breasted Flycatcher and the Massena Partridge are the most conspicuous other examples. It seems curious that, arriving at their breeding haunts at a time when nearly all of their neighbors are building or setting or rearing broods, and after the weather is as uniformly mild and propitious as that of Italy itself, they invariably wait several weeks before beginning to build, tho' I have learned that they commonly select a cavity within a few days after their arrival, and if not disturbed make it their rendezvous until later in the season when they see fit to build in it. I have never known a nest to be begun until the clouds were gathering for the summer rains, and only one before the rains had actually well begun, the latest nest being taken Aug. 15, but these eggs were well incubated. Two pairs I have seen drowned out of their cavities by the driving rains filling them to over-flowing; in fact my

first eggs were almost submerged in water just after a hard storm, and last season I took an incomplete set of two from beneath nearly two inches of water in a water-tight cavity filled to the brim. These birds had gone some fifty yards up the stream and built anew.

They are a very shy, suspicious bird and I could rarely get an opportunity to watch them at their nesting, except by going while they were away from home and quietly awaiting their return in an inconspicuous place. Presently the subdued, discordant screeching of the two birds at once would announce that they were about the cavity, and this particular tone I never heard anywhere else, so it became a clue to me. I was unable to ascertain whether the male assisted in the work of nest building but think that he did. 'Tis a very common habit with them to alight on a high commanding position and take an extended survey before going to the nest. If they see you and leave, don't think to hide and await their return for the eggs may cool for hours, but Mrs. Sulphur-belly will not return until you are gone and not until she sees or hears you go. They are usually very quiet except during the morning hours.

Their normal call is about the most unmusical imaginable. I am at a loss to describe it, and certainly can give no idea of it by the use of sounds represented by the English alphabet, or by notes of the musical scale, and, for the sake of my native tongue and of the divine art of music, I'm not sorry that I can not. It resembles slightly the screech of a large wheel devoid of lubricant, uttered once, or, often when two or more are in company, several times in succession. Heard once, it will never be forgotten or confused with any other bird voice. As for a song, I learned that they do have one. Just after sunset, one evening last August one of them perched upon the top of a small oak on a steep hillside, and, for several minutes, at intervals, executed what he certainly meant for a song. It slightly resembles that with which the Kingbird awakens one at the first streak of dawn, when sleeping out of

doors, as we so often do here in our hunting and traveling.

If, as I suspect is true among birds, a harsh, unmusical voice betokens a harsh, disagreeable nature, these birds must have very unlovely natures indeed; and I have often fancied that, either from fear or repugnance, other birds give them a wide berth. They seem fearless, but rarely, if ever, engage in chasing the raven or hawk as do the other flycatchers. Have rarely seen them chase birds from their nesting tree even tho' I have repeatedly seen a Cooper's Hawk alight on its top and remain for some time. The eggs of different birds of this species vary considerably as to size and also as to relative dimensions. Their creamy white ground is spotted and somewhat blotched with two shades of brown and lavender, very heavy on large end, the ground color there peeping thro' only here and there on some of the more heavily marked specimens, and assuming a streakiness on the more thinly marked portions of shell, but always marked plentifully over the whole area. An incomplete set of two in my possession here measure $1.00 \times .78$, $.99 \times .77$ inches and a single, an addled egg, taken from a nest containing two young birds, measures $.95 \times .72$. This last is the minimum, so far as I have seen, the first two fairly representing the average.



Mr. John M. Willard who is located at Susanville, Cal., writes us under date of July 15 from Eagle Lake, Lassen Co. that two plume hunters have killed nearly 400 grebes on the lake thus far for the season. He states that they cannot be reasoned with in the matter and profess to be unable to discern a difference between the taking of a few skins for scientific purposes and slaughtering the birds. This but records one more offense against decency, such as is carried on by vandals in almost every isolated district in which birds of valuable plumage congregate, and there seems no way of remedying the evil. Let us hear from some practical ornithologist on the subject.

The editor recently enjoyed a call at the home of Mr. Lyman Belding of Stockton, Cal., one of the three honorary members of the Cooper Club. Mr. Belding seems as well preserved and as active as he was years ago when he wrote his well known volume, *Land Birds of the Pacific District*, and still enjoys frequent outings in the Sierra Nevadas, where he engages in fishing and hunting and bird study as a pastime.